LG

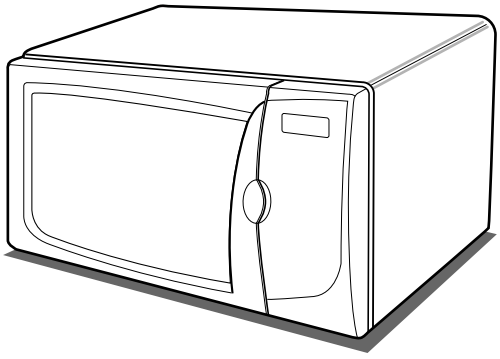
MICROWAVE OVEN

SERVICE MANUAL

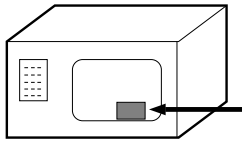
MODEL : MB-394A, MH-594A

CAUTION

BEFORE SERVICING THE UNIT, READ THE SAFETY PRECAUTIONS IN THIS MANUAL.

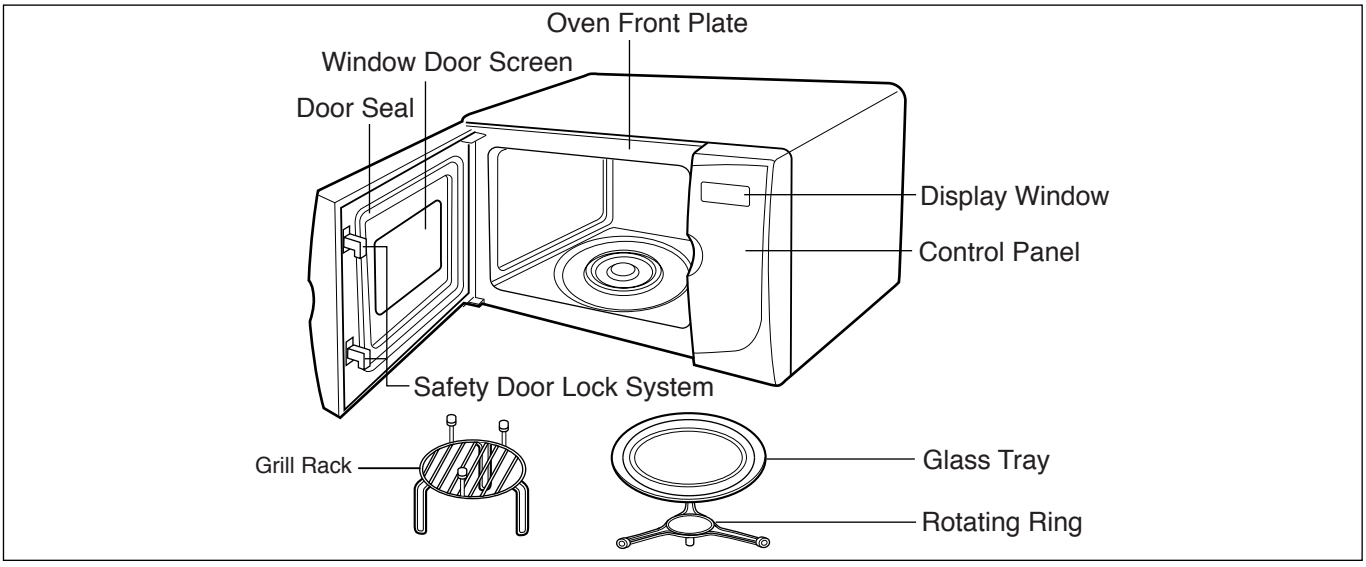


SPECIFICATIONS

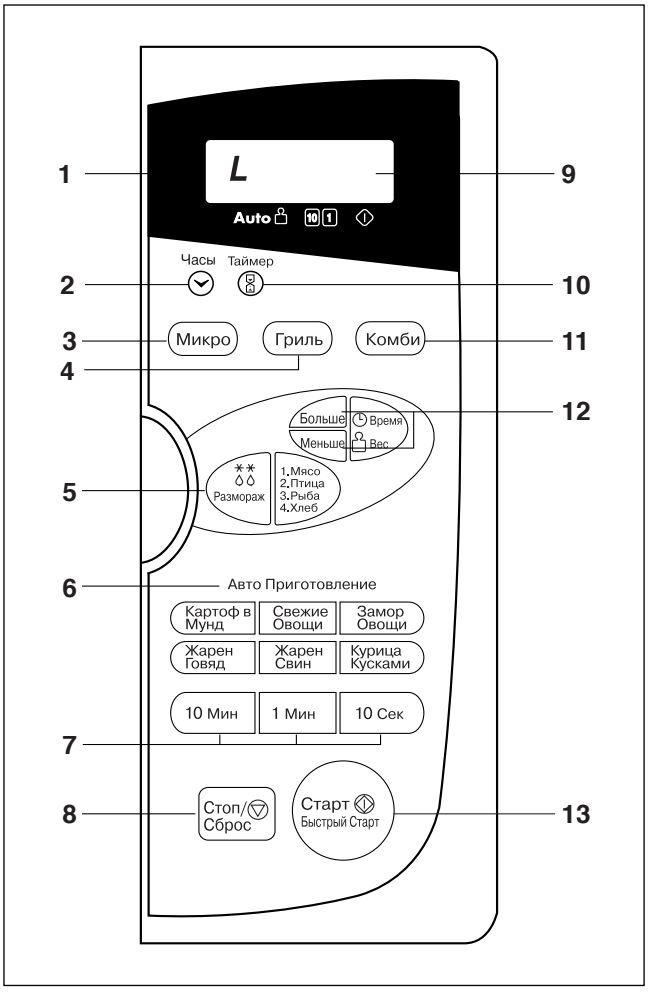
ITEM	DESCRIPTION		
MODEL		**MB-394A**	**MH-594A**
Power Requirement	230 Volts AC 50 Hz Single phase, 3 wire grounded Microwave Grill Combination	 1,200W 1,100W 2,250W	 1,200W 1,100W 1,200W
Power Output	800 Watts full microwave power (IEC705)		
Microwave Frequency	2,450 MHz		
Magnetron	2M214 - 39F		
Timer	90 min.		
Outside Dimensions	483 (W) x 285 (H) x 360 (D) mm		
Cavity Dimensions	312 (W) x 198 (H) x 316 (D) mm		
Net Weight	13.7 kg (approx.)		
Shipping weight	15.1 kg (approx.)		
Control Complement	Microwave Power for Variable Cooking Power level MAX ..... Full power throughout the cooking time MED.-HIGH ..... approx. 80% of Full power MEDIUM ..... approx. 60% of Full power DEFROST ..... approx. 40% of Full power LOW/WARM ..... approx. 20% of Full power Grill, COMBI		
Name Plate Location			
Accessories	Owner's manual Glass tray Rotating ring Grill rack		
This microwave oven is designed for household use only. It is not recommended for commercial purposes.			

OPERATING INSTRUCTIONS

FEATURES



CONTROL PANEL



1. INDICATORS

2. SET CLOCK: Used to set the time of day.

3. MICRO: Used to select the desired power level for microwave cooking.

4. GRILL: Used to select the grill cooking.

5. AUTO DEFROST: Used to select the auto weight defrost.

6. AUTO COOK: Used to cook the foods listed by one touch.

7. TIME: To set cooking times.

8. STOP/CLEAR: Used to stop oven and clear all entries except time of day.

- CHILD LOCK

9. DISPLAY WINDOW

10. KITCHEN TIMER

11. COMBI: Used to select the combination cooking.

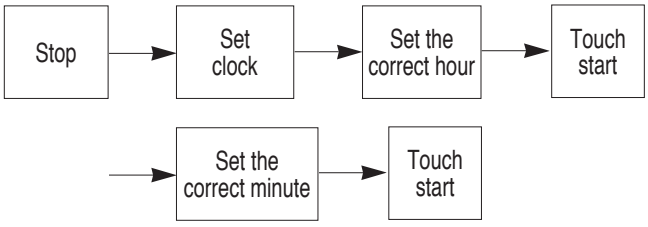
12. MORE/LESS: Used to change cooking time.

13. START: One tap allows oven to begin functioning.

OPERATING SEQUENCE

The following is a description of component functions during oven operation.

1. SETTING THE CLOCK



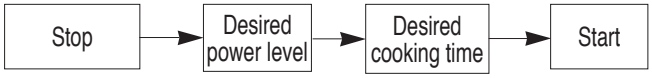
NOTE: You can set 12 hour clock or 24 hour clock optionally.

2. CANCEL FUNCTION

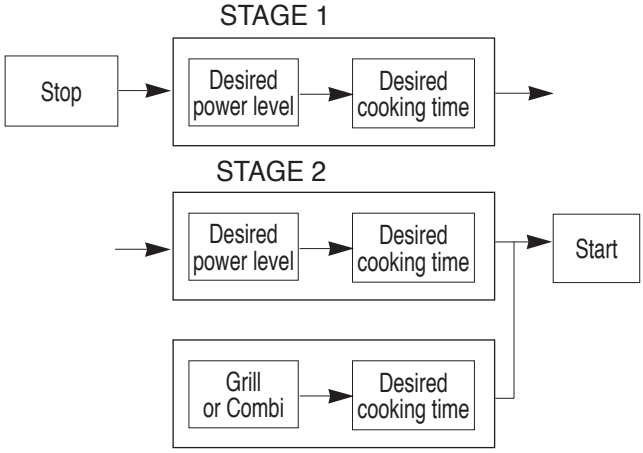
Touch the STOP pad whenever you need to cancel an entry or a function currently in use.
The display will either return to the last item entered or to the clock.

3. QUICK START

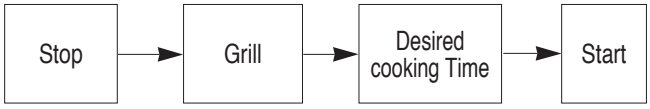
4. MICROWAVE COOKING



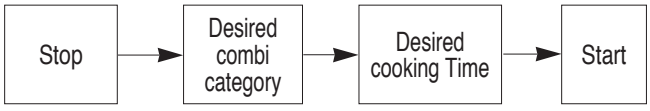
5. MULTI-STAGE MICROWAVE COOKING



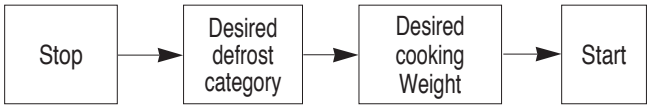
6. GRILL COOKING



7. COMBINATION COOKING



8. AUTO WEIGHT DEFROST



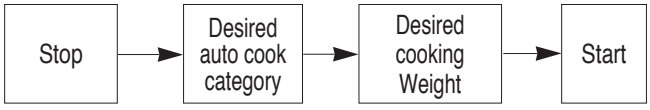
9. CHILD LOCK

This oven has a CHILD LOCK feature

- TO SET CHILD LOCK
  - Touch the Stop pad
  - Touch STOP pad → **L** appear in the display.

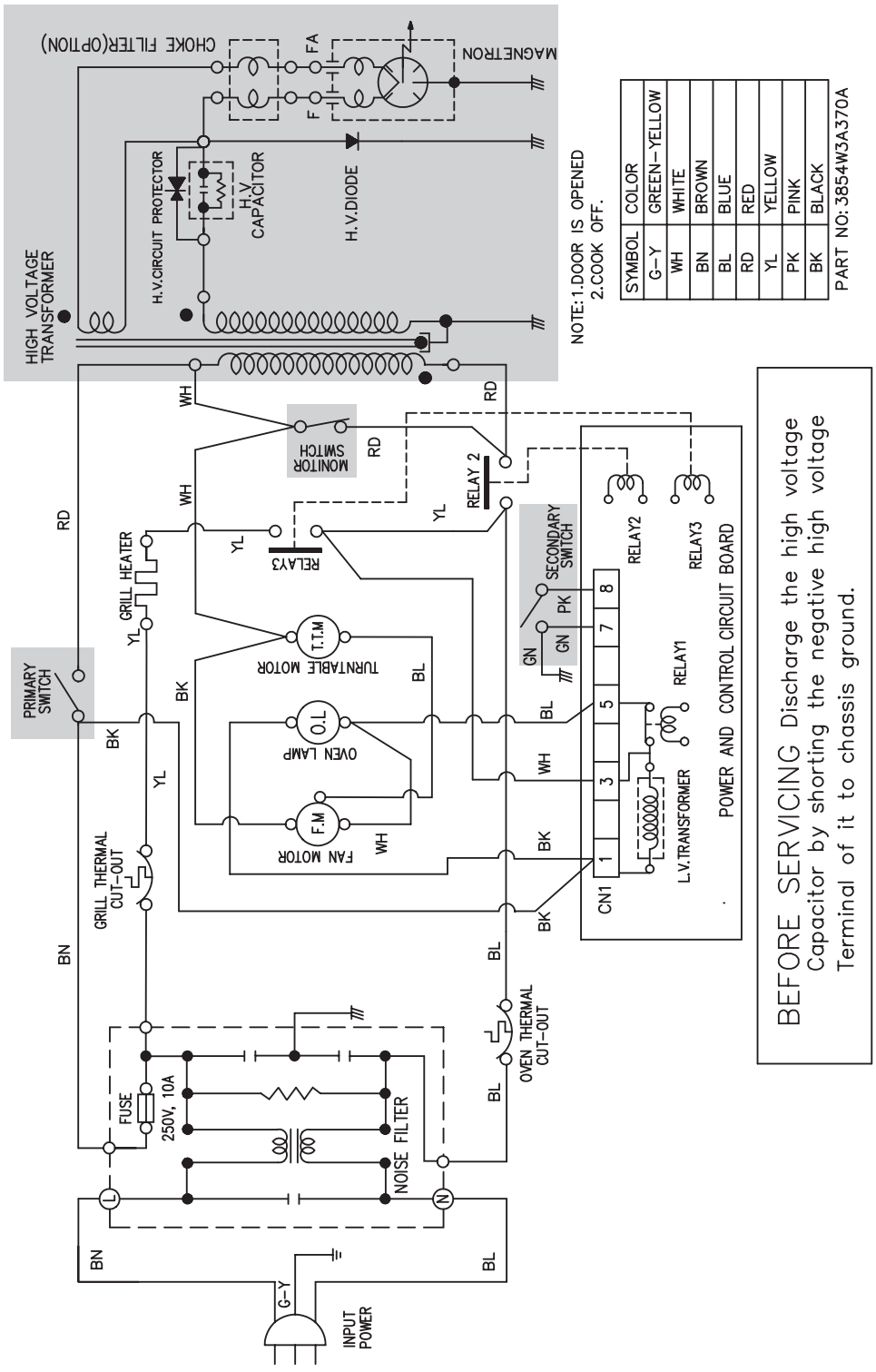
- TO CANCEL CHILD LOCK
  - Touch the Stop pad
  - Touch STOP pad → **L** disappears.

10. AUTO COOK

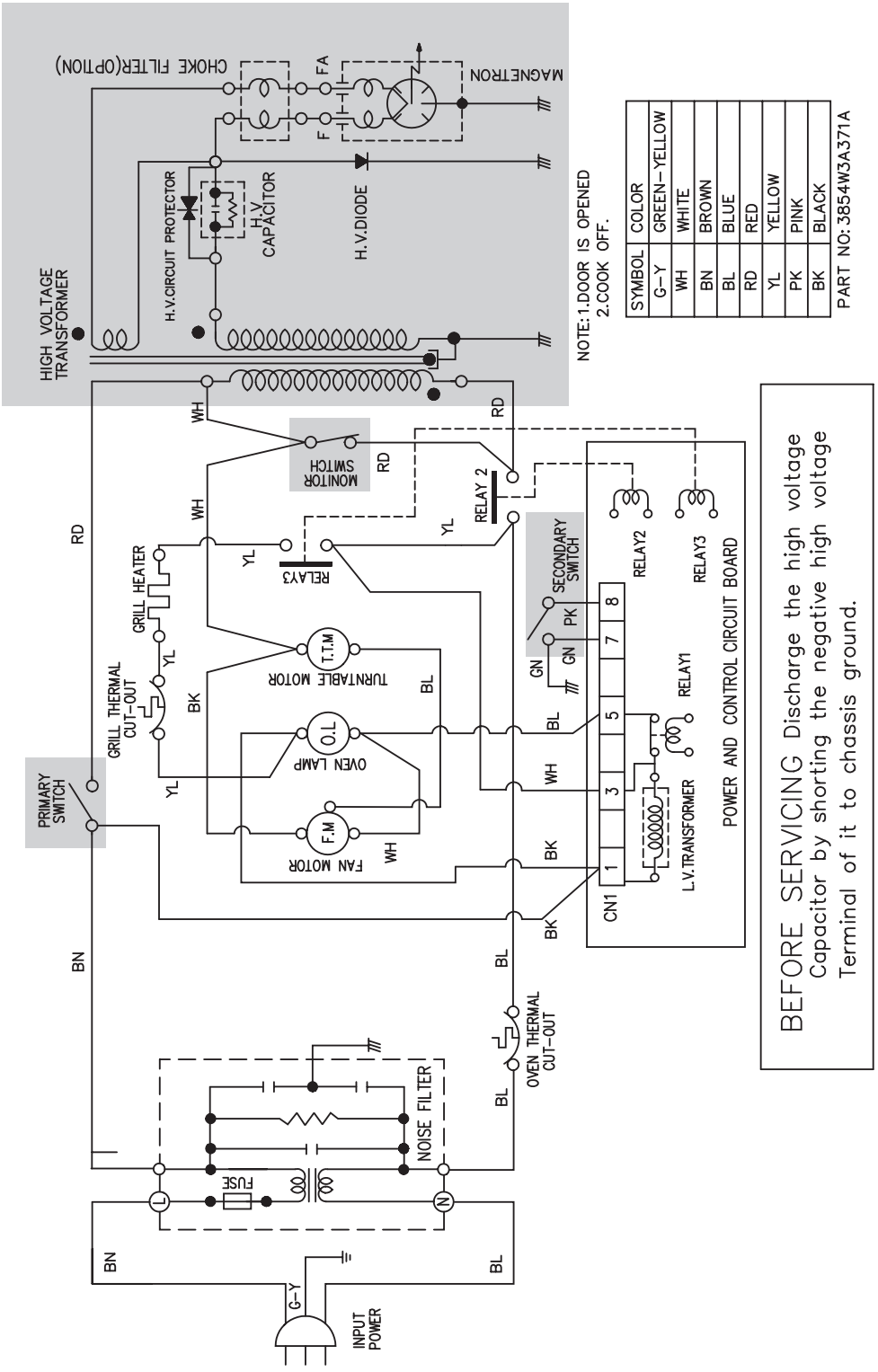


SCHEMATIC DIAGRAM

FOR MODEL MB-394A



FOR MODEL MB-394AA



CIRCUIT DESCRIPTION

GENERAL DETAILS

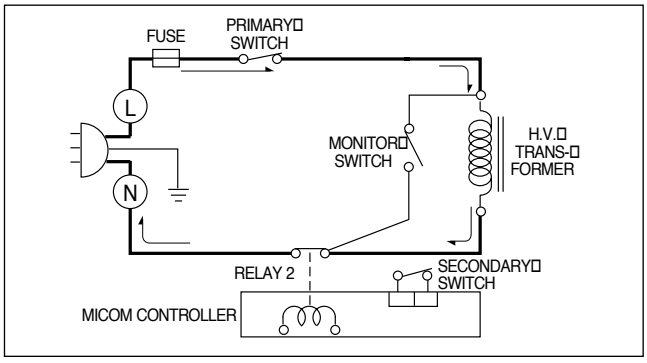
- The low voltage transformer supplies the necessary voltage to the micom controller when power cord is plugged in.
- When the door is closed, the primary switch is ON, the secondary switch is ON, and the monitor switch opens (contact COM and NO).

WHEN SELECTING COOKING POWER LEVEL AND TIME

- The micom controller memorizes the function you set.
- The time you set appears in the display window.
- Each indicator light turns on to indicate that the stage has been set.

WHEN TOUCHING THE START PAD

- The coil of the relay is energized by the micom controller.
- Power input is supplied to the high voltage transformer through the fuse to the primary switch and relay 2.
- Turntable rotates.



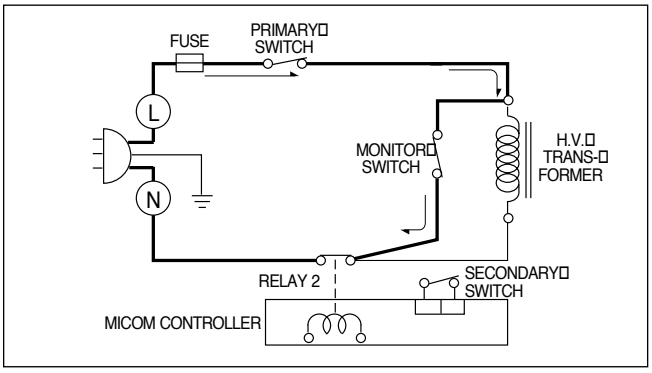
- The fan motor rotates and cools the magnetron by blowing the air (coming from the intake on the baseplate).
- The air is also directed into the oven to exhaust the vapor in the oven through the upper plate.
- Cooking time starts counting down.
- 3.2 volts AC is generated from the filament winding of the high voltage transformer. This 3.2 volts is applied to the magnetron to heat the magnetron filament through two noise-preventing choke coils.
- A high voltage of approximately 2100 volts AC is generated in the secondary of the high voltage transformer which is increased by the action of the high voltage diode and charging of the high voltage capacitor.
- The negative 4,000 Volts DC is applied to the filament of the magnetron.

WHEN THE OVEN IS SET AT ANY LEVEL EXCEPT MAXIMUM.

- The micom controller controls the ON-OFF time of relay 2 by the applied signal to vary the average output power of microwave oven as POWER LEVEL. (refer to page 1-1)

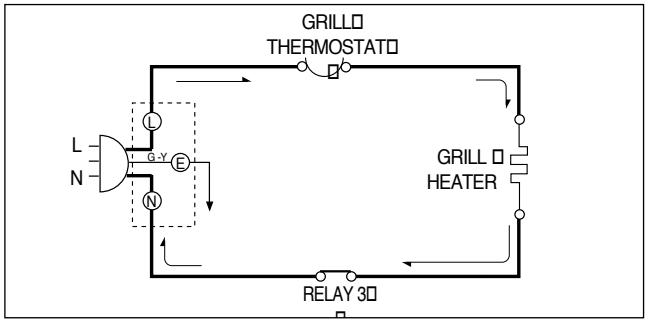
WHEN THE DOOR IS OPENED DURING COOKING

- Both the primary switch and relay 2 are cut off primary winding voltage of the high voltage transformer.
- ON-OFF of relay 2 is coupled electrically with opening and closing of the secondary switch.
- When the door is opened, the secondary switch is opened and when the door is closed, the secondary switch is closed.
- The cooking time stops counting down.
- Relay stops functioning.
- As the door is opened, if the contact of primary switch and relay 2 and/or secondary switch fails to open, the fuse opens due to the large current surge caused by the monitor switch activation, which in turn stops magnetron oscillation.



WHEN TOUCHING THE START KEY WITH THE GRILL COOKING FUNCTION SELECTED

- The contacts of the primary switch and the secondary switch close the circuit.
- A.C. voltage is applied to the grill heater through grill thermostat as shown by the solid line.



- Turntable rotates.
- The fan motor rotates.
- The air is also directed into the oven to exhaust the vapor in the oven through the base plate and upper plate.